http://ipm.osu.edu/fruit/index.html

THE OHIO STATE UNIVERSITY Newsletter Extension

Fruit ICM News

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Calendar

December 12: Small Fruit Production School, at the Licking County Extension Office. This school will address the fundamentals in getting the right start in small fruit production and will focus on production issues. Cost will be $12.00 for lunch, refreshments, and handouts. For more information, contact Howard Siegrist at (888) 838-0219, Extension 6900.

January 8-9, 2001: Kentucky State Horticultural Meeting. For more information contact John Strang, University of Kentucky (606) 257-5685.

January 9-10, 2001: Great Lakes Vegetable Growers Convention, in Grand Rapids, Michigan. For information and registration for the program contact Dave Smith, Michigan Vegetable Growers Association and program coordinator, at (734) 848-8899. As part of the convention, a "Plasticulture School" will follow the regular meeting and will be offered on January 11. Dr. Ron Goldy, Extension Vegetable Specialist, will be coordinator and contact or the program. Ron can be reached at (616) 944-1477. Please note that pre-registration for the plasticulture meeting will be required.

January 29-31, 2001: Indiana Horticultural Congress, at the Adams Mark Hotel in Indianapolis. The Congress is for participants; let them know what issues you would like them to address. Check the website often for updates: http://www.hort.purdue.edu and follow the link for Indiana Horticultural Congress.

February 7-9, 2001: Ohio Fruit Growers Society Congress, in conjunction with the Ohio Vegetable and Potato Growers Association, Ohio Direct Marketing Association, and The Ohio State University

will be held in Toledo at the Seagate Centre and Radisson Hotel.

Bayer Acquires Flint Fungicide

Source: http://www.fruitgrowersnews.com

Bayer Corporation announced December 7 that the Federal Trade Commission has approved the acquisition of the strobilurin fungicide Flint from Novartis Corporation. The acquisition gives Bayer global ownership of intellectual property rights, registrations, and trademarks, as well as production and formulation information for the entire Flint product line. Bayer has registrations in the United States for Flint on grapes, pome fruit, cucurbits, potatoes, tomatoes, almonds and hops.

Effectiveness of Fosetyl-Aluminum and Streptomycin Alone and In Combinationfor Control of Blister Spot on 'Mutsu' Apples in Ohio and New York

Source: M. A. Ellis, L. V. Madden, Department of Plant Pathology, The Ohio State University, Wooster, OH 44691, and T. J. Burr, Department of Plant Pathology, New York State Agricultural Experiment Station, Cornell University, Geneva, NY 14456 as reported in Plant Health Progress, Dec. 4, 2000

http://www.planthealthprogress.org/current/research/mutsu/article.htm

The efficacies of fosetyl-Al (Aliette 80 WDG) and streptomycin (Agri-mycin 17 WP) were evaluated alone and in combination for control of blister spot of 'Mutsu' apple in Ohio and New York. In both test orchards, streptomycin-resistant strains of Pseudomonas syringae pv. papulans were present. The results of field tests conducted in two consecutive years in Ohio were very similar. Fosetyl-Al and streptomycin applied alone resulted in significantly fewer infected fruit and significantly lower disease severity than the nontreated control. In 1997 only, the combination treatment of fosetyl-Al and streptomycin resulted in significantly less infected fruit and significantly less disease severity than the other treatments. For field experiments conducted in two consecutive years in New York, streptomycin and fosetyl-Al plus streptomycin resulted in significantly fewer infected fruit and significantly less disease severity than the untreated control, with no significant differences between treatments. Fosetyl-Al decreased disease severity and increased the percentage of marketable fruit in 1995, but it did not in 1996. The results suggest that fosetyl-Al and streptomycin usually provide a significant level of blister spot control when applied alone. When applied in combination, they may have an additive effect that increases the level of disease control.

However, the level of control under the heavy disease pressure that occurred in both years of testing in Ohio was still less than 50% as compared to the nontreated control. The level of control obtained in New York tests was also unsatisfactory. Results indicate that fosetyl-Al and streptomycin alone or in combination are not highly efficacious in orchards where streptomycin-resistant strains of P. syringae pv. papulans are present, and their use in such orchards is not economically feasible. The lack of effective chemical controls could increase the economic importance of blister spot in the U.S.

Michigan Blueberry Web Resources

Blueberry Diseases - http://www.msue.msu.edu/vanburen/e-1731.htm

Blueberry Insect Pests - http://www.msue.msu.edu/vanburen/e-1863.htm

Highbush Blueberry Nutrition - http://www.msue.msu.edu/vanburen/e-2011.htm

Hints on Growing Blueberries - http://www.msue.msu.edu/vanburen/e-2066.htm

Sign-up for Apple Market Loss Assistance

Source: US Apple Association via John Wargowsky - Executive Director, Ohio Fruit Growers Society

The U.S. Department of Agriculture (USDA) announced on Tuesday, December 5, that the sign-up period for the $100 million apple market loss assistance program will begin on January 18, 2001. The $38 million crop loss assistance program is expected to be significantly more complicated to administer and, as such, no sign-up timeline has yet to be established for that program. Apple growers are encouraged to contact their local USDA Farm Services Agency (FSA) service center on January 18, 2001 to sign up for the apple market loss assistance program.

Novartis Crop Protection Stands Behind Plant Biotechnology

Source: A. H. Tally, Novartis Crop Protection, as reported in Plant Health Progress - Perspectives - 28 June 2000

Plant biotechnology has taken a beating in the news media and by environmental groups lately, and the "pro-biotech" voice has barely been heard above the din. We want that to change. Novartis Crop Protection stands firmly behind plant biotechnology and encourages others to join the campaign. It's up to us to spread the word about the many benefits biotechnology brings to our world.

Soon agricultural biotechnology will yield consumer benefits like improved nutrition and more flavorful, higher-quality fruits and vegetables. Already, scientists have developed a strain of golden rice enhanced with beta-carotene and iron that could improve the health of billions of people in developing countries. Biotechnology also has the potential to remove allergens from foods like peanuts, soy, and wheat. By increasing yield per acre, it's estimated that biotechnology has protected close to 15 million square miles of wildlife habitat, representing the greatest environmental achievement in human history (1).

Higher yields have also prevented soil erosion by requiring less farmland. Biotechnology will help triple the farm output needed by the year 2050 to keep up with the growing world population. The ability to grow crops in adverse conditions has staggering potential in areas like the tropics. For instance, genetic

researchers have found a way to overcome the aluminum toxicity that cuts crop yields by as much as 80 percent in acidic tropical soil. Upon discovering that citric acid ties up the harmful aluminum ions, the researchers introduced a gene for citric acid secretion to tobacco and papaya plants, which then grew unrestricted (1).

Biotechnology has the potential to render crops virtually free from insects, disease and bacteria. These attributes are real. They're our future. And they're all brought to you by plant biotechnology. It's unfortunate that misinformation spread by a few activist groups may delay the acceptance of a technology that has the potential to enhance nutrition, reduce starvation and help sustain the environment around the globe.

Novartis -- along with other agribusiness companies and farmers worldwide -- takes its responsibility for environmental stewardship very seriously. Our biotechnology products meet or surpass the most stringent regulatory standards in existence with agencies such as the US Food and Drug Administration (FDA), the US Environmental Protection Agency (EPA), and the US Department of Agriculture (USDA).

Despite perceived consumer trends and the recent decision by sister company Gerber to reduce genetically enhanced ingredients in its baby food, Novartis Crop Protection is committed to plant biotechnology, to the safe introduction of genetically enhanced products into the market, and to the farmers we serve. We Back Biotech!

References

1. Dennis T. Avery, Director of Global Food Issues, Hudson Institute. "Plants and Population: We Have the Time. Do We Have the Will?"

We Need Biotech to Feed the World

By Norman Borlaug. Mr. Borlaug, who was awarded the Nobel Peace Prize in 1970 for his accomplishments in agriculture, is a professor at Texas A&M University. From the Wall Street Journal, December 6, 2000

Science is under attack in affluent nations, where anti-biotech activists claim consumers are being poisoned by inorganic fertilizers and synthetic pesticides. They also claim that newer genetic engineering technologies decrease bio-diversity and degrade the environment. Neither claim is true, but fear-mongering could be disastrous for less-developed nations. Recently, in India, I confronted a move to outlaw inorganic, synthetic fertilizers. Government officials had been influenced by a cadre of international foes of technology. Officials told me that although Indian agriculture had greatly benefitted from the use of such fertilizers in its Green Revolution -- by which India achieved self-sufficiency in grain in the 1970s -- they were now concerned that these products might have long- term negative effects. They wanted to revert to the exclusive use of so-called organic fertilizers.

They were correct about one thing -- India has been the beneficiary of modern agricultural techniques. In the mid-1960s, both Pakistan and India saw widespread famine. I managed to persuade both governments to try the highly productive dwarf wheat and the improved integrated crop management practices that my colleagues and I had developed at the International Maize and Wheat Center in Mexico.

The results speak for themselves: In 1965, wheat yields were 4.6 million tons in Pakistan and 12.3 million in India. By 1970, after the introduction of our new wheat, Pakistan produced nearly twice its amount, while India increased its yield to 20 million tons. The trend continues. This year Pakistan harvested 21 million tons, and India 73.5 million -- all- time records. This salutary trend will be reversed if misguided bureaucrats have their way. Such a law as India proposed would have seriously diminished the country's ability to feed its one billion people. Famine would again rear its ugly head.

The citizens of affluent nations may be able to pay more for food produced by "natural" or "organic" methods. The chronically undernourished people of impoverished nations cannot. They also cannot afford to have the promise of new agricultural technology nipped in the bud, as many anti-biotechnology activists wish. The latter have been agitating about the supposed threats to human health engendered by bio-engineered foods. But such foods pose no greater threat to health than foods produced by conventional methods -- probably even less.

While activists inveigh against introducing a gene from one plant or one species into another, they fail to note that conventional breeders have been doing just that for many years. Today we do it better. In the past, conventional plant breeders were forced to bring unwanted genes along with desirable ones when incorporating insect or disease resistance in a new crop variety. The extra genes often had negative effects, and it took years of crossbreeding and selection to oust them.

Conventional plant breeding is crude in comparison to the methods being used in genetic engineering, where we move one or a few genes that we know are useful. We must do a better job of explaining such complexities to the general public so people will not be vulnerable to anti-biotech distortions.

Some environmental extremists bewail the use of genetic modification that allows crops to be herbicide resistant, or others that allow plants to produce their own insecticide. Among other charges, they suggest that herbicide resistance might be passed to wild relatives of the crops, and that insecticide-producing plants will decimate insect life and decrease bio-diversity. The truth is that resistance genes bred into crops by conventional means could also be spread to wild relatives by Mother Nature herself. Steps can be taken to minimize the possibility of that happening.

Further, the suggestion that insecticide-producing plants will wipe out insects like Monarch butterflies is truly far-fetched. The most likely threat to the butterflies is a reduction of their winter habitat by encroaching land development in Mexico. What the activists don't want people to know is that one very good way to protect wildlife habitat is to ensure that marginal lands are not pressed into agricultural service in an attempt to feed burgeoning populations.

In 1960 in the U.S., the production of the 17 most important food, feed, and fiber crops was 252 million tons. By 1999 it had increased to 700 million tons. It is important to note that the 1999 harvest was produced on 10 million fewer acres than were cultivated in 1960. If we had tried to produce the harvest of 1999 with the technology of 1960, we would have had to increase the cultivated area by about 460 million acres of land of the same quality -- which we didn't have.

It is this type of arithmetic that is so important when considering how to feed the world's ever-increasing population. In 1914, when I was born, there were about 1.6 billion people in the world. Now it's about six billion, and we're adding about 85 million each year. We will not be able to feed the people of this millennium with the current agricultural techniques and practices. To insist that we can is a delusion that will condemn millions to hunger, malnutrition, and starvation, as well as to social, economic and political chaos.

I visited Russia recently and spent some time at the newly renamed N.I. Vavilov Institute of Genetics and Crop Breeding in St. Petersburg. As I was leaving the conference room, a professor emeritus pulled me aside and pointed to the red chair at the head of the conference table, which was unoccupied during our meeting. "That's where Trofim Lysenko sat for 12 years when he destroyed our agricultural research programs and sent many of our top scientists to prison camps." T.D. Lysenko, of course, was the pseudo-geneticist who insisted that Soviet agriculture must be run along politically-correct party lines. Many who disagreed with Lysenko, including N.I. Vavilov, perished in prison camps. I fear that, like Lysenko, those ideologically opposed to technological advances will unduly influence our government and developing nations, as they have almost succeeded in doing in India. If they do, our prospects for feeding the world will be dim indeed.

I believe the world will be able to produce the food needed to feed the projected population of about 8.3 billion in the year 2025. I also believe that it can be done with little negative impact on the environment. But it cannot be attained without permitting the use of technologies now available, or without research to further improve and utilize new technologies, including biotechnology and recombinant DNA.

UV Radiation Approved for Juice Products

The November 29 *Federal Register* notice announced the Food and Drug Administration's (FDA) approval of ultraviolet (UV) radiation treatments to reduce pathogens and other microorganisms in juice products. While the process cannot assure the elimination of every microorganism in juice products, it can achieve a considerable reduction. The likelihood of any remaining viable microorganisms will depend on the microorganism, the original microbial load, and the dose applied. Therefore, users of this UV treatment who are subject to certain performance standards (eg. 5-log pathogen reduction), will need to establish that this treatment meets their required level of pathogen reduction.

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